

SYSOYEV, Ye. P.

Cand Agr Sci - (diss) "Restoration of forest by aerial sowing in concentrated felling areas under conditions of the Kirovskaya Oblast." Sverdlovsk, 1961. 23 pp; (Ministry of Higher and Secondary Specialist Education RSFSR, Ural Forestry Engineering Inst); 100 copies; price not given; (KL, 6-61 sup, 232)

PROKOP'YEV, M.N., kand. sel'khoz. nauk, otv. red.; BERGER, D.S., zam. otv. red.; SYSOYEV, Ye.P., kand. sel'khoz. nauk, red.; SMIRNOV, P.D., red.; LALETINA, M.Ye., red.; KHOROSHAVIN, A., tekhn. red.

[Efficient methods of cutting and reestablishing taiga forests in the European part of the U.S.S.R.; collection of reports of the Kirov Interprovincial Scientific Technical Conference] Ratsional'nye priemy rubok i vostanovleniya taezhnykh lesov evropeiskoi chasti SSSR; sbornik rabot Kirovskoi mezhoblastnoi nauchno-tehnicheskoi konferentsii. Kirov, Kirovskoe obl. upr. nauchno-tehn. ob-va lesnoi promyshl. i lesnogo khoz., 1962. 136 p.  
(MIRA 17:1)

1. Zaveduyushchiy laboratoriyy lesovedstva i lesovosstanovleniya Kirovskogo nauchno-issledovatel'skogo instituta lesnoy promyshlennosti (for Prokop'yev). 2. Nachal'nik Otdela nauchno-tehnicheskoy informatsii Kirovskogo nauchno-issledovatel'skogo instituta lesnoy promyshlennosti (for Berger).

SYSOYEV, Yevgeniy Petrovich, kand. sel'khoz. nauk; KARDAKOVA, Ye.A.,  
red.

[Forest resources at the service of people] Lesnye bogat-  
stva - na sluzhbu narodu. Kirov, Kirovskoe knizhnoe izd-  
vo, 1963. 41 p. (MIRA 17:7)

1. Direktor Kirovskogo nauchno-issledovatel'skogo i pro-  
yektnogo instituta lesnoy promyshlennosti (for Sysoyev).

SYSQEV, E. V.

Voenno-inzhenernoe delo. Military engineering. Barkhin, M. G. i dr. Dopushchено в качестве учеб. для строит. вузов. Москвa, Год. изд-во строит. lit-ry, 1946. 335 p. illus.

DLC: UG145.S97

SO: Soviet Transportation and Communication, A Bibliography, Library of Congress Reference Department, Washington, 1952, Unclassified.

MUSAYELYANTS, R.N.; SYSOYEV, Yu.D.; SULTANOV, D.K., red.; ZEYNALOVA,T.,  
red. izd-va; MASIROV, N., tekhn. red.

[Safety measures in operating drilling pumps] Tekhnika bez-  
opasnosti pri ekspluatatsii burovyykh nasosov. Baku, Azernesh,  
1961. 68 p.  
(Oil well pumps--Safety measures)

KUTSYN, P.V., kand.tekhn.nauk; SYSOYEV, Yu.D., inzh.

Efficient bracing of drill pumps. Bezop.truda v prom. 6  
no.2:18-20 F '62. (MIRA 15:2)  
(Oil well pumps)

SYSOYEVA, A. F.

Sysoyeva, A. F. and El'Tekova, C. P. "Speech disorders and certain schematic ways of understanding and treating them connected with the knowledge of the phylogeny and ontogeny of the living organism", Sbornik trudov Leningr. nauch.-issled. in-ta po bolznyam ukh, nosa, gorla i rechi, Vol. 1X, 1948, p. 246-58.

SO: U- 3042, 11 March 53, (Letopis "Zhurnal "nykh Statey, No. 7, 1949)

LAQUTINA, N.I.; SISOYEVA, A.F.

Role of ecological factors in the process of acclimatization of  
Macaca rhesus in a breeding farm. Fiziol. zhur. 50' no.8:941-950  
Ag '64. (MIRA 18:12)

1. Laboratoriya fiziologii i patologii vysshey nervnoy deyatel'nosti  
Instituta eksperimental'noy patologii i terapii AMN SSSR, Sukhumi.

LAGUTINA, N.I.; SYSOYEVA, A.F.

Comparative physiological characteristics of experimental neuroses  
in vertebrates. Vest. AMN SSSR 20 no. 11:20-30 '65 (MIRA 19:1)

1. Institut eksperimental'noy patologii i terapii AMN SSSR, Sukhumi.  
Submitted July 13, 1965.

KANTER, V.M., dotsent, SYSOYEVA, A.I.

Clinical features of poliomyelitis in Khabarovsk in 1956 [with summary in English]. Pediatriia 36 no.4:43-48 Ap'58 (MIRA 11:5)

1. Iz kafedry infektsionnykh zabolеваний (zav. - dotsent S.Ye. Shapiro na baze gorodskoy infektsionnoy bol'nitsy (glavnyy vrach Ye. N. Ageyeva) i kafedry nervnykh bolezney Khabarovskogo meditsinskogo instituta.  
(KHABAROVSK--POLIOMYELITIS)

MYASNIKOV, I.A. (Moskva); Prinimal uchastiye SYSOYEVA, A.P., starshiy  
laborant

Electric conductivity of n-semiconductors in the chemisorption  
of molecules, atoms and radicals. Zhur. fiz. khim. 34  
no.2:395-404 F '60. (MIRA 14:7)

1. Fiziko-khimicheskiy institut im. L.Ya.Karpova.  
(Semiconductors) (Chemisorption)

SYNOPSIS

BLINOVA, V.A.; PLOTNIKOVA, N.V.; VOLKOV, N.M.; SYSOYEVA, A.V.; AVDEYEV, P.P.; KATSEVMAN, Kh.A.; RODINA, P.M.; GUSEVA, L.L.; KAMENSKIY, V.I., red.; BYKOV, A.N., tekhn.red.

[Economy of Tambov Province; a statistical manual] Narodnoe khoziaistvo Tambovskoi oblasti; statisticheskii sbornik. [Tambov] Izd-vo "Tambovskaya pravda," 1957. 187 p. (MIRA 11:3)

1. Tambovskaya oblast'. Statisticheskoye upravleniye. 2. Statisticheskoye upravleniye Tambovskoy oblasti (for all except Kamenskiy, Bykov). 3. Nachal'nik Statisticheskogo upravleniya (for Kamenskiy) (Tambov Province--Statistics)

SYSOYEVA, F.A. (Moskva)

Generalizations of an inequality of Hardy. Izv.vys.ucheb.  
zav.; mat. no.6:140-143 '65. (MIRA 19:1)

1. Submitted May 30, 1964.

Sysoyeva, F.D.

69-20-1-19/20

AUTHORS: Volarovich, M.P.; Sysoyeva, F.D.; Chernyavskaya, V.V.,  
Churayev, N.V.

TITLE: Determination of the Bound Water Content in Peat by the  
Method of the Negative Adsorption of a Radioactive Indicator  
(Opredeleniye soderzhaniya svyazannoy vody v torfe metodom  
otritsatel'noy adsorbsii radioaktivnogo indikatora)

PERIODICAL: Kolloidnyy Zhurnal, 1958, Vol XX, # 1, pp 122-124 (USSR)

ABSTRACT: Radioactive sulfur S<sup>35</sup>, in the compound Na<sub>2</sub>SO<sub>4</sub>, is used for determining the content of bound water in peat specimens. The natural humidity of the specimens is increased to 95% by addition of distilled water. Then 20 g of (<sup>35</sup>SO) solution of Na<sub>2</sub>S<sup>35</sup>O<sub>4</sub> is added, and the mixture stirred. After 15 min the mixture is centrifuged and the initial and final concentration of the radioactive indicator is measured. A formula for calculating the amount of bound water in the specimen is given.

There is 1 table, and 3 Soviet references.

ASSOCIATION: Moskovskiy torfyanoy institut Kafedra fiziki (Moscow Peat  
Institute, Chair of Physics)  
Card 1/2

69-20-1-19/20

Determination of the Bound Water Content in Peat by the Method of the  
Negative Adsorption of a Radioactive Indicator

SUBMITTED: October 16, 1957

AVAILABLE: Library of Congress

Card 2/2

SYSOYEVA, I. N.

SYSOYEVA, I. N.: "The pain syndrome in the clinical treatment of acute poliomyelitis." Order of Labor Red Banner Inst of Pediatrics, Acad Med Sci USSR. Moscow, 1956.  
(Dissertation for the Degree of Candidate in Medical Sciences)

So: Knizhnaya Letopis', No. 18, 1956

SYSOYEVA, I.M.

Pain syndrome in the clinical aspects of acute poliomyelitis and its differential and diagnostic role. Pediatriia no.3:26-31 Mr '57.  
(MIRA 10:10)

1. Iz kliniki nervnykh bolezney (zav. - prof. D.S.Puter) Nauchno-issledovatel'skogo pediatriceskogo instituta Ministerstva zdravookhraneniya RSFSR (dir. - kandidat meditsinskikh nauk V.N.Karachevtseva) i Detskoy klinicheskoy bol'nitey No.1 (glavnnyy vrach - zasluzhennyy vrach RSPSR Ye.V.Prokhorovich)  
(POLIOMYELITIS) (PAIN)

SYSOYEVA, I.M.; YAKUNIN, Yu.A.

Recurrent acute poliomyelitis. Zhur.nerv.i psikh. 59 no.7:781-784  
'59. (MIRA 12:11)

1. Klinika ostrykh neyroinfektsiy (zav. - prof. D.S. Futer) Nauchno-  
issledovatel'skogo pediatriceskogo instituta (dir. - kand.med.nauk  
A.P. Chernikova) Ministerstva zdravookhraneniya RSFSR na baze detskoy  
klinicheskoy bol'nitsy No.1 (glavnnyy vrach Ye.V. Prokhorovich), Moskva.  
(POLIOMYELITIS, in inf. & child,  
recur. (Rus))

SYSOYEVA, I.M.

Clinical aspects of the concurrent course of poliomyelitis with  
some infectious diseases in children. Vop.ohh.mat.i det.7 No.12:  
20-24 D'62. (MIRA 16:7)

1. Iz kliniki ostrykh neyroinfektsiy (zav.- prof. D.S.Futer)  
Nauchno-issledovatel'skogo pediatriceskogo instituta (dir.-  
kand.med.nauk V.P.Spirina) Ministerstva zdravookhraneniya RSFSR  
i Detskoy klinicheskoy bol'nitsy no.1 (glavnnyy vrach - zasluzhennyy  
vrach RSFSR Ye.V. Prokhorovich), Moskva.  
(POLIOMYELITIS) (CHILDREN—DISEASES)

YAKUNIN, Yuriy Aleksandrovich; SYSOYEVA, Iraida Mikhaylovna;  
POTAPOVA, I.N., red.; FRONINA, N.D., tekhn. red.

[Infantile paralysis - poliomyelitis] Detskii paralich -  
poliomielit. Moskva, Medgiz, 1963. 20 p. (MIRA 16:5)  
(POLIOMYELITIS)

YAMPOL'SKAYA, E.I.; SYSOYEVA, I.M.; KIPNIS, S.L.

Neuroinfections in infants under two years of age (analysis of morbidity for 20 years). Zhur. nevr. i psikh. 64 no.7:981-985 '64. (MIRA 17:12)

1. Klinika nervnykh bolezney (zaveduyushchiy - prof. D.S. Futer) Nauchno-issledovatel'skogo pediatriceskogo instituta Ministerstva zdravookhraneniya RSFSR (direktor V.P. Spirina) na baze Detskoy klinicheskoy bol'nitsy No.1 (glavnnyy vrach N.S. Bonova), Moskva.

SYSOYeva, K. M.

"Concenritated Method for Curing Syphilis," Vest. Venerol. i Dermatol., No. 4, 1948 Mbr.,  
Clinic Dermato-Venereal Diseases, Voronezh Med. Inst., -c1948-.

SYSOYEVA, L.A.

Cross resistance of bacteria adapted to actinoidin and erythromycin  
with relation to various antibiotics [with summary in English]  
Antibiotiki 3 no.1:112-115 Ja-F'58 (MIRA 11:5)

1. Laboratoriya eksperimental'nogo izucheniya lechebnykh svoystv  
novykh antibiotikov Instituta po izyskaniyu novykh antibiotikov  
AMN SSSR.

(ANTIBIOTICS, effects,  
actinoidin & erythromycin, cross resist. in bact. (Rus))

SYSOYEVA, L.A.

Variability of bacteria following exposure to actinoidin and erythromycin [with summary in English]. Antibiotiki, 3 no.3:87-91 My-Je '58 (MIRA 11:?)

1. Laboratoriya eksperimental'nogo izucheniya lechebnykh svoystv novykh antibiotikov (zav. - doktor med.nauk V.A. Shorin) Instituta po izyskaniyu novykh antibiotikov. AMN SSSR.

(ERYTHROMYCIN, effects,  
bact. variability (Rus))

(ANTIBIOTICS, effects  
actinoidin, bact. variability (Rus))

SYSOYEVA, L. A., Cand Med Sci (diss) -- "A comparative study of the chemotherapeutic properties of actinoidin and erythromycin". Moscow, 1960. 16 pp  
(Acad Med Sci USSR), 200 copies (KL, No 14, 1960, 139)

RUFANOV, I.G.; GOVOROVICH, Ye.A.; MARSHAK, A.M.; D'YACHENKO, G.M.;  
SYSOYEVA, L.A.

Clinical use of the combined antibiotic sigmamycin (tetracycline and  
oleandomycin). Vest.AMN SSSR 17 no.3:3-8 '62. (MIRA 15:4)

l. Laboratoriya po klinicheskoy aprobatsii novykh antibiotikov  
AMN SSSR.  
(SIGMAMYCIN)

RUFANOV, I. G., prof.; SYSOYEVA, L. A., kand. med. nauk

Antibiotic resistance of various bacteria isolated from surgical patients. Khirurglia 38 no.7:9-16 J1 '62. (MIRA 15:7)

1. Iz laboratorii po klinicheskoy aprobatsii novykh antibiotikov (zav. - deystvitel'nyy chlen AMN SSSR prof. I. G. Rufanov) AMN SSSR.

(ANTIBIOTICS) (BACTERIA, EFFECT OF DRUGS ON)

RUFANOV, I.G.; GOVOROVICH, Ye.A.; MARSHAK, A.M.; SYSOYeva, L.A.; D'YACHENKO, G.M.

Ristomycin, a new antibiotic for intravenous introduction; studies  
on its clinical and physiological effect on patients with severe  
infections. Antibiotiki 8 no.9:836-839 S '63.

(MIRA 17:11)

I. Laboratoriya po klinicheskoy aprobatsii novykh antibiotikov  
AMN SSSR.

RUFANOV, I.G., prof. (Moskva, Novoslobodskaya, 4, 57/65, kv.6); DISCIPLINA  
I.G., kand. med. nauk.

Bacterial resistance to oleandomycin, tetracycline and their  
combination under experimental and clinical conditions. Vest.  
(MIRA 17:4)  
Zh. 91 no.9:3-9 3163.

I. Ia laboratori po klinicheskoy aerobatsii novykh antibiotikov  
pri SSSR (nauchnyy rukovoditel' - prof. I.G. Rufanov).

RUFANOV, I.G., prof.; MARSHAK, A.M., kand. med. nauk; SYSOYEVA, L.A.,  
kand. med. nauk

Use of levorin, an antifungal antibiotic, in the treatment  
and prevention of complicated candidiasis in surgical patients.  
Khirurgia 40 no.2:6-11 F '64. (MIRA 17:7)

1. Laboratoriya po klinicheskoy aprobatsii novykh antibiotikov  
(nauchnyy rukovoditel' - deystvitel'nyy chlen AMN SSSR prof.  
I.G. Rufanov) Instituta khirurgii imeni A.V. Vishnevskogo  
AMN SSSR, Moskva.

MARSHAK, A.M., kand. med. nauk; SYSOYeva, L.A., kand. med. nauk

Preventive use of antibiotics in surgery on the stomach.  
Khirurgiia 40 no.2:19-24 F '64. (MIRA 17:7)

1. Laboratoriya po klinicheskoy aprobatsii novykh antibiotikov  
(nauchnyy rukovoditel' - deystvital'nyy chlen AMN SSSR prof.  
I.G. Rufanov) Instituta khirurgii imeni A.V. Vishnevskogo,  
AMN SSSR, Moskva.

RUBTSOVA, L.K.; ANTONOVA, L.N.; D'YACHENKO, G.M.; GRACHEVA, N.M.;  
SYSOYEVA, L.A.; PROKHOROVA, I.I.; PLOTKINA, N.S.

Experience in the clinical use of novobiocin. Antibiotiki  
(MIRA 18:12)  
10 no.10:930-934 0 '65.

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov;  
Klinika infektsionnykh zabolеваний II Moskovskogo meditsinskogo  
instituta i Institut klinicheskoy i eksperimental'noy khirurgii.  
Submitted Jan. 14, 1965.

SYSOYeva, L. I.; ZAKHAROVA, S. M.

Air pollution control in connection with the blowoff of filter  
presses. Masl.-zhir.prom.21 no.6:29-30 '55. (MLRA 8:12)

1. Giprozhir  
(Air--Pollution) (Oil industries--Equipment and supplies)

1957, No. 9

57-9-33/40

AUTHOR: Ayrapetyants, S.V., Yefimova, B.A., Stavitskaya, T.S.,  
Still'bans, L.S., Sysoyeva, L.M.

TITLE: On the Mobility of Electrons and Holes in Solid Solutions Ob-  
tained on the Basis of PbTe and Bi<sub>2</sub>Te<sub>3</sub>  
(O podvizhnosti elektronov i dyrok v tverdykh rastvorakh, polu-  
chennykh na osnove telluridov svintsa i vismuta)

PERIODICAL: Zhurnal Tekhn. Fiz., 1957, Vol. 27, Nr 9, pp. 2167 - 2169 (USSR)

ABSTRACT: On the strength of the facts mentioned here it may be said that  
in all investigated cases the electrons move along the sublattice  
of the cathions and the holes move along the anion sublattice.  
Expressed in terms of quantum mechanics this means that the mo-  
dulated amplitude of the wave function of electrons moving in  
the conduction zone attains its maximum values near nodes occu-  
pied by positive ions, while its lowest are attained near the  
negatively charged nodes. For holes in a nearly completely fill-  
ed zone the opposite is the case. Therefore electron mobility  
is considerably reduced by the distortions of the "positive sub-  
lattice", and hole mobility is considerably reduced by those  
of the "negative sublattice". Furthermore, the conclusion is  
drawn that, if it is intended to reduce the heat conductivity

Card 1/2

YEFIMOVA, B.A.; STAVITSKAYA, T.S.; STIL'BEANS, L.S.; SYSOYEVA, L.M.

Scattering mechanism of carriers in some solid solutions based on  
the tellurides of bismuth and lead. Fiz. tver. tela 1 no.9:1325-1332  
(MIRA 13:3)  
S '59.

1. Institut poluprovodnikov AN SSSR, Leningrad.  
(Solutions, Solid) (Bismuth telluride)  
(Lead telluride)

247766  
67364  
507/161-19-2/31  
Liberadova, M. N., Golikova, O. A., Yakovlev, V. A., Kuts,  
sov, V. A.; Sivitskaya, T. S.; Streltsov, L. S.; Sivitskaya, N.  
Title: Investigation of the Scattering Mechanics of Carriers in Some  
Semimetals

PERIODICAL: Fizika Tverdogo Tela, 1959, Vol. 1, No. 9, pp. 1344 (USSR)

ABSTRACT: The above investigations were conducted on lead telluride and bismuth, and aided at the following: 1) with electron scattering, the dependence of the time required for the traveling of the free pathlength on the intensity of thermal vibrations and on the energy of electrons should be determined; 2) In the scattering on the ionized impurity atoms one finds the dependence of  $\tau$  on the concentration of the impurities and also on the energy of the electron. A qualitative picture of these phenomena should then be determined on the basis of the quantitative ratios thus determined. The investigations were mainly conducted on polycrystalline samples produced by powder methods. The dependence of  $\tau$  on the energy  $E$  of the electron and also on the intensity of the thermal vibrations is still unclear; these

dependences, however, can be separated from one another by appropriate investigations. Among other things, the following holds for lead telluride:  $u \sim T^{5/2}$  holds throughout the temperature range investigated for the mobility of a sample with the concentration of  $5 \cdot 10^{17}$ . In the case of concentrations of  $2 \cdot 10^{18}$  and  $1.5 \cdot 10^{19}$   $u \sim T^{5/2}$  holds in the range of high temperatures, and in the case of low temperatures  $u \sim T^{-1/2}$  holds. The latter sample is already partially degenerated at low temperatures, and this degeneration becomes stronger with increasing concentration of the carriers. The two-phonon processes are likely to play the principal part at higher temperatures. The temperature dependence of the mobility of degenerated and non-degenerated samples is characterized by the factor  $T^m$ . In this connection  $m = -1/2$  holds, which corresponds to the electron scattering on the acoustic branch of the atom lattice. The dependence of the thermoelectroactive force on the temperature and on the concentration of the carriers are in satisfactory agreement with the theory. Also in the case of  $n$ -type  $\text{Bi}_{2}Te_3$  and  $\text{Bi}_{2}S_3$ , the dependence of the thermoelectroactive force on the concentration of the carriers is in good agreement with the theory. This also holds for the temperature dependence of mobility in  $\text{Bi}_{2}Te_3$  with ion thermoelectroactive forces and with low temperatures. The temperature dependence of mobility is steeper with weakly degenerated samples of PbTe and  $\text{Bi}_{2}Te_3$  than in the case of the strongly degenerated ones. Presumably the reason, however, holds for bismuth sulfide. Next, the authors investigate the scattering of electrons on the ions of impurity or the alloy  $\text{Bi}_{0.8} \text{S}_{0.2} \text{Te}_3$  on pressed samples of the  $n$ -type. Cu<sup>+</sup> (donor) and Pb (acceptor) were selected as impurities. Mobility drops appreciably with increasing number of ions. In bismuth telluride, with scattering on the ions of the impurity, the time required by the electrons for traveling through the free pathlength does not depend on energy. Results obtained in the investigation under review agree with Erginov's theory (Ref. 5). For  $\text{Bi}_{2}Te_3$

$\frac{1}{u(n)} = \frac{1}{u_0(n)} + S_1 n^{1/2}$  holds. Here  $u_0$  denotes the theoretical dependence of  $u$  on  $n$  for  $\alpha = 1/2$ , where  $n$  denotes the number of electrons (and ions) and  $S_1$  is the transversal cross section of the ion. A similar relation also holds for the dependence of the motion on temperature. There are 19 figures and 6 references, 4 of which are Soviet.

ASSOCIATION: Institut poluprovodnikov AN SSSR Leningrad (Institute of Semiconductors of the AS USSR, Leningrad)

SUBMITTED: May 19, 1959

KOLOMOYETS, N.V.; LEV, Ya.Ya.; SYSOYEVA, L.M.

Nature of current carriers in GeTe. Fiz. tver. tela 5 no.10:  
2871-2876 0 '63. (MIRA 16:11)

1. Institut poluprovodnikov AN SSSR, Leningrad.

ACCESSION NR: AP4019827

8/0181/64/006/003/0706/0713

AUTHORS: Kolomoyets, N. V.; Lev, Ye. Ya.; Sysoyeva, L. M.

TITLE: Electrical properties and a model of the valence band of germanium telluride

SOURCE: Fizika tverdogo tela, v. 6, no. 3, 1964, 706-713

TOPIC TAGS: density state, semiconductor band structure, Fermi level, semiconductor carrier, impurity concentration

ABSTRACT: The authors have noted anomalies in the concentration and temperature dependence of the basic electrical properties (thermoelectromotive force, Hall concentration, mobility, and electrical conductivity) of GeTe. On the basis of a single-band model, the anomalies may be associated with changes in effective mass with state and temperature. But the authors suggest a more likely model, reflecting the complex structure of the valence band. This model consists of two subzones within the band, displaced relative to each other, and having different density states. The scheme of this model is illustrated in Fig. 1 on the Enlosure. On the basis of this model it is easy to explain quantitatively the

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ACCESSION NR: AP4019827

anomalies indicated. The first segment, in which the electrical properties have normal dependence on state, corresponds to the Fermi level in subzone 1, when carriers of but a single kind participate in current transfer. The second segment corresponds to a position of the Fermi level when high-mobility holes are accompanied by low-mobility holes from subzone 2, which has a high density state. A change in Te content in this region is accompanied by a change in concentrations of high-mobility and low-mobility holes, and this is manifested in the anomalous dependence of electrical properties on state. Quantitative determinations of the basic parameters of the subzones appear reasonable. Orig. art. has: 6 figures and 6 formulas.

ASSOCIATION: Institut poluprovodnikov AN SSSR, Leningrad (Institute of Semiconductors AN SSSR)

SUBMITTED: 29Jul63

DATE ACQ: 31Mar64

ENCL: 01

SUB CODE: EC, SS

NO REF Sov: 001

OTHER: 003

Card 2/3

ACCESSION NR: APL019827

ENCLOSURE: 01

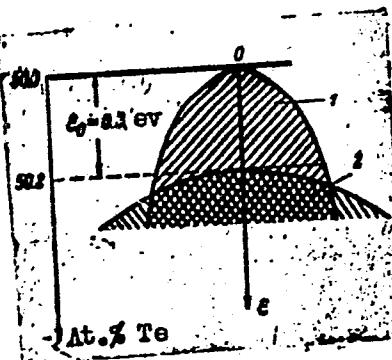


Fig. 1. Diagrammatic sketch of the valence band in germanium telluride.

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L 38604-65 EWT(1)/EWT(2)/T/EMP(t)/EMP(b)/EIA(c) IJP(c) JD  
ACCESSION NR: AP5005321 S/0181/65/007/002/0652/0653

AUTHORS: Andreyev, A. A.; Sysoyeva, L. M.; Liv, Ye. Ya.

TITLE: Effect of high pressure on the electric properties of germanium telluride

SOURCE: Fizika tverdogo tela, v. 7, no. 2, 1965, 652-653

TOPIC TAGS: germanium telluride, electric conductivity, thermal emf, Hall constant, effective mass, carrier mobility

ABSTRACT: The electric conductivity, the thermal emf, and the Hall constant were measured in single crystal germanium telluride at pressures up to  $10,000 \text{ kg/cm}^2$ . The carrier density in the investigated crystals fluctuated between  $9 \times 10^{20}$  and  $1.2 \times 10^{21} \text{ cm}^{-3}$ . The pressure dependence of the electric conductivity was measured both at room temperature and at higher temperatures up to 200°C, and the conductivity increased linearly with the pressure in the entire temperature interval. No temperature dependence of the effect was observed within an accuracy of 5%. The increase in electric conductivity per  $1000 \text{ kg/cm}^2$  was 2.5 and 3.0% for annealed and unannealed samples, respectively. The Hall constant was measured in only one sample, accurate to 10--15%, and remained independent of the pressure within this accuracy. The thermal emf decreased with increasing pressure, at approximately -1.0% per  $1000 \text{ kg/cm}^2$ . The results are interpreted as the consequence of the variation of the effective mass with pressure, using a theoretical procedure proposed by the authors earlier (FTT v. 6,

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29

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L 38604-65

ACCESSION NR: AP5005321

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706, 1964). The "effective mass of the state density" is shown to decrease at a rate of approximately  $-1.0\%$  per 1000 kg, owing to the change in the gap between the conduction and valence bands. The authors also calculated the change in the variation of mobility with pressure from the electric-conductivity data, and the result ( $3.2\%$  per 1000 kg/cm $^2$ ) is in satisfactory agreement with the experimental value. "The authors thank A. A. Averkin and Ye. G. Strel'chenko for continuous interest in the work and for a discussion of the results." Orig. art. has: 1 figure and 3 formulas.

ASSOCIATION: Institut poluprovodnikov AN SSSR, Leningrad (Institute of Semiconductors  
AN SSSR)

SUBMITTED: 04Jul64

ENCL: 00

SUB CODE: SS, EM

NR REF SOV: 002

OTHER: 000

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2/2 llc

ANOKHIN, A.A.; VYBOVICH, L.M.; IIV, Ye.Va.

Effect of high pressure on the electric properties of germanium  
semiconductors. TEL. tver. tele 7 no. 24652-653 F '65.

(NRA 18:8)

R. Institute of Physics AN SSSR, Leningrad.

L 2203-66 EWT(1)/EWT(m)/ETC/ENG(m)/T/EWP(t)/EWP(b)/EWA(h) IJP(c) RDW/JD/AT  
ACCESSION NR: AP5017328 UR/0181/65/001/007/2223/2226

AUTHOR: Sysoyeva, L. M.; Lev, Ye. Ya.; Kolomoyets, N. V.

TITLE: On the energy spectrum of the carriers in germanium telluride

SOURCE: Fizika tverdogo tela, v. 7, no. 7, 1965, 2223-2226

TOPIC TAGS: forbidden band, spectral energy distribution, electric conductivity, Hall effect, germanium compound, telluride

ABSTRACT: This is a continuation of earlier work by the authors on the electric properties of germanium telluride (FTT v. 6, 706, 1964). In the present investigation, both polycrystalline and single-crystal samples were studied, and the concentration interval was broadened from  $1.8 \times 10^{20}$  to  $1.8 \times 10^{21} \text{ cm}^{-3}$ . Plots were obtained for the Hall carrier density against the concentration of the introduced copper atoms, and of the thermal emf against the Hall carrier density. The fact that the electric properties exhibited a clear-cut dependence on the concentration has made it possible to calculate more accurately the parameters of the subbands at room temperature, namely the energy gap between the subbands  $\Delta E = (0.23 \pm 0.03)$  ev, the effective mass of the heavy holes  $m_h^* = (4.0 \pm 0.5)m_0$ , and the effective mass of the light holes  $m_l^* = 1.15m_0$ . The temperature variations of the various electric parameters are discussed. The fact that the thermal emf decreases at

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ACCESSION NR: AP5017328

high temperatures while the electric and thermal conductivity increase indicates that carriers of opposite sign appear. The use of samples with lower carrier density has made it possible to determine more accurately the width of the forbidden band, namely  $0.27 \pm 0.03$  ev at absolute zero, for four concentrations in the interval  $1.8$  to  $6.3 \times 10^{20} \text{ cm}^{-3}$ . Orig. art. has: 2 figures and 2 formulas.

ASSOCIATION: Institut poluprovodnikov AN SSSR, Leningrad (Institute of Semiconductors, AN SSSR)

SUBMITTED: 01Dec64

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ENCL: 00

SUB CODE: 88

NR REF Sov: 002

OTHER: 004

Card 2/2 DP

L 8164-66 EWT(1)/EWT(m)/ETC/EWG(m)/EWP(b)/EWP(t) IJP(c) RDW/JD  
ACCESSION NR: AP5019892 UR/0181/65/007/008/2558/2559

AUTHOR: Andreyev, A. A.; Sysoyeva, L. M.; Lev, Ye. Ya.

TITLE: Temperature dependence of the Hall effect and electric conductivity in  
germanium telluride

SOURCE: Fizika tverdogo tela, v. 7, no. 8, 1965, 2558-2559

TOPIC TAGS: germanium compound, telluride, electric conductivity, Hall effect,  
thermal emf, semiconductor carrier

ABSTRACT: To explain some anomalies observed in the behavior of the electric conductivity and thermal emf of germanium telluride, the authors measured the Hall coefficient in the interval from room temperature to 500°C for three samples of GeTe with different carrier densities ( $2.5, 6,$  and  $11 \times 10^{20} \text{ cm}^{-3}$ ). The samples with  $11 \times 10^{20} \text{ cm}^{-3}$  was a single crystal. The measurements were made with alternating current and the measurement accuracy was ~3%. The results are shown in Figure 1 of the Enclosure. The sharp decrease in the Hall constant in the 300 — 400°C region correlates with the phase transition in GeTe. Measurements of the temperature dependence of the electric conductivity increases upon melting and that the liquid has a positive temperature coefficient. This can be interpreted as a result of

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L 8164-66

ACCESSION NR: AP5019892

retention of the semiconductor properties in the liquid state. The change in the slope of the electric conductivity vs. temperature curve in the interval 350 — 400C is interpreted as due to the appearance of carriers of the opposite sign. Orig. art. has: 2 figures.

ASSOCIATION: Institut poluprovodnikov AN SSSR Leningrad (Institute of Semiconductors AN SSSR)

SUBMITTED: 05Apr65

ENC: 01

SUB CODE: SS

NR REF SOV: 002

OTHER: 001

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ACCESSION NR: AP5019892

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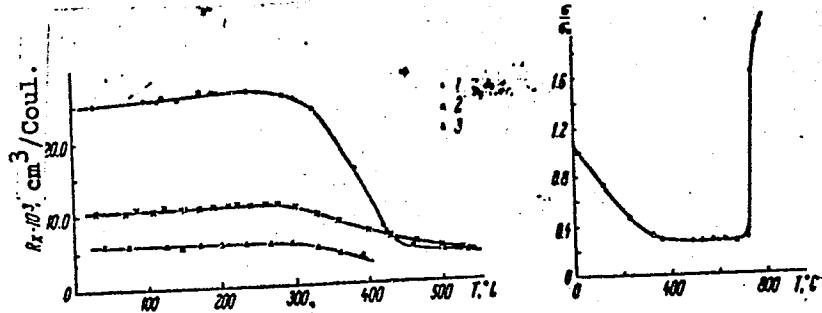


Fig. 1. Temperature dependence of Hall coefficient for samples with different carrier density (left) and for a sample with excess tellurium (right).

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L 29973-66 EWT(m)/ETC(f)/EWP(t)/ETI IJP(c) RDW/JD  
ACC NR: AP6012487 SOURCE CODE: UR/0181/66/008/004/1212/1216

AUTHORS: Sysoyeva, L. M.; Lev, Ye. Ya.; Kolomoyets, N. V.

ORG: Institute of Semiconductors AN SSSR, Leningrad (Institut poluprovodnikov AN SSSR)

TITLE: Mechanism of carrier scattering in germanium telluride

SOURCE: Fizika tverdogo tela, v. 8, no. 4, 1966, 1212-1216

TOPIC TAGS: germanium compound, telluride, carrier scattering, hole mobility, carrier density, crystal defect, temperature dependence

ABSTRACT: Continuing their earlier work on this subject (FTT v. 7, 223, 1965 and v. 6, 706, 1964), the authors discuss the experimentally observed anomalous dependence of the carrier mobility in germanium telluride on the temperature and on the density, and conclude that although the mobilities of the light and heavy holes have the same temperature variation ( $\sim T^{-3/2}$ ), the difference in the effective masses of the two types of holes (by approximately one order of magnitude) gives rise to different temperature dependences of the mobilities and differences in the dependence of the mobility on the true carrier density. The anomalies are caused by the facts that at different densities the relative

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ACC NR: AP6012487

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shears of the heavy and light holes vary. The comparison of the experimental data with the authors' theory, which allows for two types of holes, is made under the assumption that there is no interband scattering. The observed dependence of the absolute mobility on the concentration of defects in the crystal is related to additional scattering by the screened lattice defects, which does not depend on the temperature. It is concluded as a result that in germanium telluride there are two simultaneously acting scattering mechanisms, by the acoustic lattice vibrations and by the screened defects. The observed anomalies in the behavior of the mobility are due, as in other materials, to the complicated structure of the energy spectrum of the carriers. Orig. art. has: 2 figures and 3 formulas.

SUB CODE: 20/ SUBM DATE: 24May65/ ORIG REF: 006/ OTH REF: 003

Card

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ACC NR:  
AP6033552

SOURCE CODE: UR/0181/66/008/010/2925/2928

AUTHOR: Kolomoyets, N. V.; Vinogradova, M. N.; Lev, Ye. Ya.; Sysoyeva, L. M.

ORG: Institute of Semiconductors, AN SSSR, Leningrad (Institut poluprovodnikov AN SSSR)

TITLE: Hall effect in semiconductors with two types of carrier

SOURCE: Fizika tverdogo tela, v. 8, no. 10, 1966, 2925-2928

TOPIC TAGS: Hall effect, semiconductor carrier, carrier density, temperature dependence, semiconductor band structure, Current carrier

ABSTRACT: The purpose of the paper is to clarify the influence of the presence of two types of current carrier of the same polarity on the Hall coefficient when account is taken of the variation of the energy gap  $\Delta E$  with temperature, and to compare the calculated data with the experimental ones for p-type PbTe and for GeTe. The change in the Hall coefficient with decreasing fraction  $n_2$  of the heavier carriers (holes), due to the change in the temperature and simultaneous decrease in the gap  $\Delta E$  between the sub-bands is calculate for several carrier mobility ratios (5, 10, 20). The calculation shows that the Hall coefficient  $R_x$  should go through a maximum at a definite ratio  $n_2/n_1$ , amounting to 0.95 and 0.92 for GeTe and PbTe respectively.  $R_x$  increases with increasing temperature (corresponding to an increase in  $n_2/n_1$ ), in agreement with the experimental data, but at temperatures above 570K for GeTe and 400-450K for PbTe

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ACC NR: AP6033552

its experimental values begin to decrease, although theoretically it should reach a maximum at higher temperatures. The discrepancy is attributed to the appearance of carriers of opposite polarity, to a change in the overall carrier density due to the change in solubility of the doping metal, and to inaccuracies in the determination of the band parameters. Orig. art. has: 2 figures and 5 formulas.

SUB CODE: 20/ SUBM DATE: 15Feb66/ ORIG REF: 005/ OTH REF: 006

Card 2/2

ACC NR: AF6036782

(N)

SOURCE CODE: UR/0363/66/002/011/1925/1929

AUTHOR: Lev, Ye. Ya.; Sysoyeva, L. M. Kolomoyets, N. V.

ORG: Institute for Semiconductors AN SSSR (Institut poluprovodnikov AN SSSR)

TITLE: Effect of impurities on the concentration of current carriers and on the thermal resistance of the germanium telluride lattice

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 2, no. 11, 1966.  
1925-1929TOPIC TAGS: germanium compound, telluride, current carrier, heat resistance,  
germanium semiconductorABSTRACT: The article reports the results of an investigation of density as a function of the composition and concentration of current carriers, and of the effect of additions of certain group I, III, and V elements on the concentration of current carriers and the thermal resistance of germanium telluride. The measurements of density were carried out in water and toluene on monocrystalline samples containing different amounts of excess tellurium, and which had a concentration of current carriers from  $7.0 \times 10^{20}$  to  $14.0 \times 10^{20} \text{ cm}^{-3}$ . The error in an individual measurement was  $\pm$  grams/cm $^2$ ; to eliminate random errors, measurements were made on a series of samples with the same composition. The experimental results are given in a series

UDC: 546.289'241:541.12.03

Card 1/2

ANKUDINOV, V.A.; KEL'MAN, V.M.; SYSOYEVA, L.N.

Acceleration of charged particles by periodically varying  
magnetic fields. Zhur.tekh.fiz. 33 no.1:19-27 Ja '63.  
(MIRA 16:2)  
1. Fiziko-tehnicheskiy institut imeni A.F.Ioffe AN SSSR,  
Leningrad.  
(Particles (Nuclear physics)) (Magnetic fields)

31943  
S/057/62/032/001/003/018  
B104/B138

24.2500

AUTHORS: Ankudinov, V. A., Kel'man, V. M., Kresin, O. M., and  
Ssyojeva, L. N.

TITLE: Motion of charged particles in a uniform magnetic field the  
strength of which is linearly dependent on time

PERIODICAL: Zhurnal tekhnicheskoy fiziki, v. 32, no. 1, 1962, 22-29

TEXT: The motion of charged particles of mass  $m$  and charge  $e$  was studied  
in a uniform magnetic field  $H_z = H_0 t + H_1$ .  $H_0$  and  $H_1$  are constant. The  
electric field created by the variation in magnetic field strength is shown  
as  $E_\varphi = -H_0 r/2c$ . The equations of motion for a charged particle in  
nonrelativistic approximation read:

$m(\ddot{r} - r\dot{\varphi}^2) = \frac{e}{c} r\dot{\varphi}(H_0 t + H_1)$ ,  $\frac{m}{r} \frac{d}{dt}(r^2 \dot{\varphi}) = -\frac{eH_0 r}{2c} - \frac{e}{c} \dot{r}(H_0 t + H_1)$ ,  $m\ddot{z} = 0$ .  
From the latter equation it follows that  $z = \dot{z}_0 t + z_0$  (3), where  $\dot{z}_0$  and  $z_0$   
are constant. Thus, the particles travel in an  $r$ - $\varphi$  plane moving along the  
z-axis at constant velocity. By substituting

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Motion of charged particles ...

$$\omega_0 = \frac{eH_0}{2mc}, \omega_1 = \frac{eH_1}{2mo}, \quad (A)$$

in the equations of motion, one obtains

$$\begin{aligned} p - r\dot{\phi}^2 &= 2r\dot{\phi}(\omega_0 t + \omega_1), \\ \frac{d}{dt}(r^2\dot{\phi}) &= -\omega_0 r^2 - 2r\dot{r}(\omega_0 t + \omega_1). \end{aligned} \quad (4)-(5).$$

Using the complex function  $U = r \exp\left\{i(\psi + \omega_0 t^2/2 + \omega_1 t)\right\}$ , this system can be represented in the form  $\ddot{U} + (\omega_0 t + \omega_1)^2 U = 0$  (7). ✓

$$U = \sqrt{t + \frac{\omega_1}{\omega_0}} \left\{ C_1 J_{\eta_1} \left[ \frac{(\omega_0 t + \omega_1)^2}{2\omega_0} \right] + C_2 J_{-\eta_1} \left[ \frac{(\omega_0 t + \omega_1)^2}{2\omega_0} \right] \right\}. \quad (8)$$

is a solution of (7),  $J_n$  being the Bessel function. The constants in (8) are determined with the aid of an initial value problem, and  
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Motion of charged particles ...

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$$U = \frac{\pi}{2} \sqrt{\frac{x_0 x}{\omega_0^2}} (\omega_1 r_0 [J_{\gamma_1}(x_0) J_{\gamma_1}(x) + J_{-\gamma_1}(x_0) J_{-\gamma_1}(x)] + \\ + [r_0 + i r_0 (\dot{\varphi}_0 + \omega_1)] [J_{-\gamma_1}(x_0) J_{\gamma_1}(x) - J_{\gamma_1}(x_0) J_{-\gamma_1}(x)]), \quad (13)$$

$$x = \frac{(\omega_0 + \omega_1)^2}{2\omega_0}, \text{ and } x_0 = \frac{\omega_1^2}{2\omega_0}.$$

is obtained as solution. Since  $r$  is the amount of the complex function  $U$ , one has

$$r = \sqrt{UU^*} = \frac{\pi}{2} \sqrt{\frac{x_0 x}{\omega_0^2}} [r_0^2 (\dot{\varphi}_0 + \omega_1)^2 [J_{-\gamma_1}(x_0) J_{\gamma_1}(x) - J_{\gamma_1}(x_0) J_{-\gamma_1}(x)]^2 + \\ + [r_0 (J_{\gamma_1}(x_0) J_{\gamma_1}(x) + J_{-\gamma_1}(x_0) J_{-\gamma_1}(x)) + r_0 (J_{-\gamma_1}(x_0) J_{\gamma_1}(x) - J_{\gamma_1}(x_0) J_{-\gamma_1}(x))]^2]^{1/2} \quad (14)$$

$$\varphi = x_0 - x + \arctg \frac{r_0 (\dot{\varphi}_0 + \omega_1)}{r_0 + \omega_1 r_0 \frac{J_{\gamma_1}(x_0) J_{\gamma_1}(x) + J_{-\gamma_1}(x_0) J_{-\gamma_1}(x)}{J_{-\gamma_1}(x_0) J_{\gamma_1}(x) - J_{\gamma_1}(x_0) J_{-\gamma_1}(x)}}. \quad (15)$$

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Motion of charged particles ...

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(3), (14), and (15) fully describe the motion of a charged particle in the given magnetic field. A thorough study shows that if a particle moves long enough its kinetic energy is almost linearly time-dependent. The results are applied to a number of special cases. There are 9 figures, and 2 non-Soviet references. The two references to English-language publications read as follows: Gordon, Charged-Particle Orbits in Varying Magnetic Fields, J. of Appl. Phys., 31, no. 7, 1187 (1960); C. S. Gardner, Particle trajectories in homogeneous magnetic field with linear time dependence, University of California, Lawrence Radiation Laboratory, Berkeley, California, Rept. 4563 (Aug. 1955). X

ASSOCIATION: Fiziko-tehnicheskiy institut AN SSSR im. A. F. Ioffe, g.  
Leningrad (Physicotechnical Institute AS USSR imeni A. F.  
Ioffe, Leningrad)

SUBMITTED: March 27, 1961  
Card 4/4

ANKUDINOV, V.A.; KEL'MAN, V.M.; SYSOYEVA, L.N.

Acceleration of charged particles by variable magnetic fields. Zhur.  
tekhn. fiz. 39 no.1:23-33 Ja '64. (MIRA 17:1)

1. Fiziko-tehnicheskiy institut imeni A.F.Ioffe AN SSSR, Leningrad.

LIVSHITS, P.S., kand.tekhn.nauk; SYSOYEVA, L.P., kand.tekhn.nauk;  
TEMKIN, I.V., inzh.

New brands of materials for electric brushes. Vest. elektroprom.  
31 no.8:17-19 Ag '60. (MIRA 15:5)  
(Brushes, Electric)

NIKOLAYEVA, N.Ye., kand.tekhn.nauk; SYSOYEVA, L.V., tekhnik

Protamines from salmon milt. Trudy VNIIRO 45:68-80 '62.  
(MIRA 16:5)

(Protamines)

(Salmon)

MORCHKOV, K.A., kand.tekhn.nauk; NIKOLAYEVA, N.Ye., kand.tekhn.nauk;  
SYSOYEVA, L.V., tekhnik

The whalebone as a source of glutamic acid and feed products. Trudy  
VNIIRO 45:122-134 '62. (MIRA 16 5)  
(Whalebone) (Glutamic acid) (Feeds)

SYSOYEVA, M.N.

Stagonospora (mottling, or fungus scald) of the amaryllis family.  
Biul.Glav.bot.sada no.16:102-109 '53. (MLRA 7:4)

1. Kolkhoz "Yuzhnyye kul'tury".  
(Amaryllis--Diseases and pests) (Fungi)

SENKOVA, I. I. i VIL'EMENSKIY, V. A.

2559h

Prednozirovaniye Formy Gidrografov Vesennikh Povodkov Klyu Bol'shikh Basseynov  
Sistemy Verkhogo Dnepra. Trudy Kievsk. Nauch.-Issled. Gidrol. Observatorii Ugms  
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OGIYEVSKAYA, V.A.; SYSOYEVA, M.P.

Short-range forecast of winter-spring floods in the upper  
Dniester. Trudy UkrNIGMI no.39:30-42 '63. (MIRA 16:7)

(Dniester River—Flood forecasting)

BEZSONOVA, M.M., prof.; SYSOYEVA, M.V., kand.med.nauk

Effectiveness of cola preparations in compound therapy for poliomyelitis in children. Ped., akush. i gin. 20 no.5:6-8 '58.

(MIRA 13:1)

1. Kafedra detskikh infektsiyonykh bolezney (zav. - prof. M.M. Bezsonova) Krymskogo meditsinskogo instituta (direktor - dots. S.I. Georgiyevskiy).

(POLIOMYELITIS) (COLA NUT)

SYSOYEVA, M.V., kand.meditinskikh nauk

Novocaine therapy for brucellosis. Sov. med. 24 no.6:51-54 Je '60.  
(MIRA 13:9)

1. Iz kafedry infektsionnykh zabolеваний (zav. - prof. V.M.  
Domrachev) Krymskogo meditsinskogo instituta.  
(BRUCELLOSIS) (NOVOCAINE)

SYSOYEVA, N. A.

"Northern Italy (Physicogeographical Character)." Thesis for degree of Cand. Geographical Sci. Sub 27 Jun 49, Moscow Order of Lenin State U imeni M. V. Lomonosov.

Summary 82, 18 Dec 52, Dissertations Presented For Degrees in Science and Engineering in Moscow in 1949. From Vechernaya Moskva, Jan-Dec 1949.

SYSOYEVA, N. A.

Po River - Delta

Dynamics of the Po River delta in the past, Izv. Vses. geog. obshch. 84, no. 3, 1952.

9. Monthly List of Russian Accessions, Library of Congress, October 195~~1~~<sup>2</sup> Uncl.

SYSOYEVA, N. D.

Sysoyeva, N. D. - "On the interaction of sodium ethyl xanthogenate with primary beta- and gamma-dibromides", (Report), Soobshch. o nauch. rabotakh chlenov Vsesoyuz. khim. o-va im. Mendeleyeva, 1949, Issue 2, p. 10-11.

SO: U-4630, 16 Sept. 53, (Letopis 'Zhurnal 'nykh Statey, No. 23, 1949).

SYSOYEVA, N. D.

Sysoyeva, N. D. - "On the interaction of the potassium salt  
of ethyl thiocarbonic acid with alpha-dibromides", (Re-  
port), Soobshch. o nauch. rabotakh chlenov Vsesoyuz. khim.  
o-va im. Mendeleyeva, 1949, Issue 2, p. 11.

SO: U-4630, 16 Sept. 53, (Letopis 'Zhurnal 'nykh Statey, No.  
23, 1949).

SYSOYEVA, N. D.

"Use of the xanthogenic method of L. A. Chugayev for Bivalent Alcohols or corresponding dibromides"., V. E. Tishchenko, the late V. N. Shabashova, and N. D. Sysoyeva, (p. 1042)

SO: Journal of General Chemistry (Zhurnal Obshchei Khimii) 1940, Volume X, no. 11.

SYSOYEVA, N. D.

(2)

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The L. A. Chugaev xanthate reaction. N. D. Syssova.  
Uspeshki Khim. 20, 498-510(1951).—Review with 69 refer-  
ences on the Chugaev method of synthesis of olefins.  
G. M. Kosolapoff

SYSOYEVA, N.D.

Y  
①

Reaction of sodium ethyl xanthate with primary  $\alpha,\omega$ -dibromides. N. D. Sysoeva (Inst. Soviet Trade, Samarkand). Zhur. Obrabotka Khim. 25, 2170-3 (1955).—Heating 57.6 g. EtOCS<sub>2</sub>Na (Ia) moistened with abs. EtOH, with 30.4 g. (CH<sub>2</sub>)<sub>2</sub>Br, several hrs. at 40–50° gave upon diln. with H<sub>2</sub>O 88.6% undistillable oil of CH<sub>2</sub>(CH<sub>2</sub>SCOE)<sub>2</sub> (II), d<sub>4</sub><sup>20</sup> 1.238, d<sub>4</sub><sup>25</sup> 1.2146. I kept several hrs. with alc. KOH gave a ppt. of EtO<sub>2</sub>CSK; while the soin. gave a nitroprusside test, evidently from formation of CH<sub>3</sub>(CH<sub>2</sub>H)<sub>2</sub>. Heating 10–15 g. I to 190–260° resulted in decompn. yielding 17–18% H<sub>2</sub>S, 70–5% COS, and 6–13% unsat. hydrocarbon, in addn. to various S-bearing substances. Similar reaction of Ia with (CH<sub>2</sub>)<sub>2</sub>Br in 4 hrs. at 50–60° gave 77.28% CH<sub>2</sub>(CH<sub>2</sub>SCOE)<sub>2</sub> (II), d<sub>4</sub><sup>20</sup> 1.158, which could not be distd. without decompn. Alc. KOH and II gave EtO<sub>2</sub>CSK and (CH<sub>2</sub>)<sub>2</sub>(Sf)<sub>2</sub>. II heated at 220–300° gave mercaptans, H<sub>2</sub>S, and a low yield of an olefin. G. M. Kosolapoff

RECORDED

SYSOYEVA, N.D., dots.

Reaction of potassium ethylthiocarbonate with primary  $\alpha$ -dibromides.  
Nauch. trudy Samark. inst. sov. torg. 8:251-254 '57.  
(MIRA 12:7)

(Potassium thiocarbonate) (Alkyl bromides)

SYSOYEVA, N.K.

Mental disorders in hyperinsulinism with spontaneous hypoglycemia syndrome. Trudy Vor. med. inst. 51:167-171 '63.

(MIRA 18:10)

l. Psichiatricheskaya klinika oblastnogo psikhonevrologicheskogo dispansera (nauchnyy rukovoditel' - prof. G.I. Plesse), Voronezh.

STEPANOV, Yuriy Sergeyevich; SYSOYEVA, N.V., red.; MASLENNIKOVA, T.A., tekhn.  
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[Modern methods for deducing the equation of state for solids; text-  
book on gas dynamics for students of faculties of mechanics and  
mathematics of State universities] Sovremennye metody opredeleniya  
uravneniya sostoianija tverdykh tel; uchebnoe posobie po gazovoi  
dinamike dlja studentov mekhaniko-matematicheskikh fakul'tetov go-  
sudarstvennykh universitetov. Moskva, Izd-vo Mosk.univ., 1961. 62 p.  
(MIRA 14:12)

(Gas dynamics) (Equation of state)

MERKUR'YEVA, Yevgeniya Konstantinovna; SYSOYEVA, N.V., red.; MALAKHOV,  
F.N., red.; YERMAKOV, M.S., tekhn. red.

[Principles of biometry] Osnovy biometrii; uchebnoe posobie  
dlia biologicheskikh fakul'tetov gosudarstvennykh universi-  
tetov. Moskva, Izd-vo Mosk. univ. 1963. 236 p.  
(MIRA 16:10)

(Biometry)

TYULINA, I.A., dots.; RAKCHEYEV, Ye.N., dots.; SYSOYEVA, N.V., red.;  
LAZAREVA, L.V., tekhn. red.

[History of mechanics; manual] Istoryia mekhaniki; uchebnoe po-  
sobie. Moskva, Izd-vo Mosk. univ., 1962. 227 p. (MIRA 15:3)  
(Mechanics)

KUZNETSOV, Nikolay Nikolayevich; RUSANOV, Viktor Vladimirovich;  
SISOYEVA, N.V., red.

[Computer mathematics; methods of approximate computation.  
Modern computers and programming. Methodological instruc-  
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and mathematics faculties of State universities] Vychisli-  
tel'naia matematika; metody priblizhenykh vychislenii.  
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Metodicheskie ukazaniia dlja studentov-zaochnikov V kursa  
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universitetov. Moskva, Izd-vo Mosk. univ., 1964. 48 p.  
(MIRA 18:4)

SYSOYEVA, N. Ya.

191T88

USSR/Mathematics - New Books

Jul/Aug 51

"Criticism and Bibliography," G. P. Boyev, N. Ya. Sysoyeva, Ye. Ye. Brenev, L. Ye. Sadovskiy

"Uspekhi Matemat Nauk" Vol VI, No 4 (44), pp 232-237

(1) I. V. Kantorovich, "Teoriya Veroyatnostey" (Theory of Probabilities), Leningrad, 1946. A textbook intended for naval and military engineering institutes. It is a small (152 pp) book but contains fundamentals of the theory of probability studied in secondary military engineer-ing schools. (2) N. V. Yefimov, "Kratkiy Kurs Analiticheskoy Geometrii" (Short Course on

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USSR/Mathematics - New Books (Contd) Jul/Aug 51

Analytical Geometry). Gostekhizdat, 1950, 248 pp, 50,000 copies. Until recently the main textbook on analytical geometry for secondary schools was the text by I. I. Privalov, "Analytical Geometry," 16th Ed, 1949, 311 pp. Defects of this book are corrected by the reviewed book of Yefimov.

191T88

A.  
SYSOYEVA, O. (g. Minsk)

White Russian food-industry workers promote technological development. NTO no.1:49-50 Ja '59. (MIRA 12:2)

1. Predsedatel' Belorusskogo respublikanskogo pravleniya Nauchno-tehnicheskogo obshchestva pishchevoy promyshlennosti.  
(White Russia--Food industry)

SYSOYEVA, O.A.

Cytogenetic radiosensitivity of the marrow cells of mice of various  
ages. Radiobiologia 4 no.6:843-846 '64. (MIRA 18:7)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.

SYSOYEVA, O.A.

For an abundance of food products. Rab.i sial. 36 no.10:8-9 0 '60.  
(MIRA 13:10)

(White Russia--Food industry)

SYSOYEVA, O.A.

Mechanization and automation in the food industry. Mekh. i avtom.  
proizv. lt no.6:12-14 Je '62. (MIRA 15:6)

1. Nachal'nik Upravleniya pishch. voy promyshlennosti soveta  
narodnogo khozyaystva BSSR.

(Automation)

(White Russia--Food industry--Technological innovations)

SOV/136-58-11-14/21

AUTHOR: Sysoyeva, R.S., Candidate of Technical Sciences

TITLE: Installation for Automatic Hydraulic Dust-Prevention in Ore-Dressing Works Crushing Shops (Ustroystvo avtomaticheskogo gidroobespylivaniya v drobil'nykh tsel'hakh obogatitel'nykh fabrik)

PERIODICAL: Tsvetnyye Metally, 1958, Nr 11, pp 78-81 (USSR)

ABSTRACT: Wetting of ore is an effective way of dust prevention in ore crushing but is often not used because of lack of automatic devices for stopping the water flow when the ore-flow is interrupted. One of several existing systems for this is described. It was designed at the Naukno-issledovatel'skiy gornometallurgicheskiy institut pri Sovnarkhoze Armysanskoy SSR (Scientific Research Institute for Mining and Metallurgy of the Economic Council of the Armenian SSR). The variant proposed (Fig.1 and 2) has a source of gamma rays on one side of the ore conveyor belt and a relay sensitive to the rays on the other: while ore is present on the belt the relay is screened and the relay circuit (fig.3)

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Installation for Automatic Hydraulic Dust-Prevention in Ore-Dressing Works Crushing Shops

keeps open a solenoid valve in the water line. The high sensitivity of the relay enables a fairly weak (1.17 mg-equiv Ra) source (Cobalt-60) to be used. The control panel circuit, designed with the help of dotsent A.N.Sagoyan of the Yerevanskiy politekhnicheskiy institut (Yerevan Polytechnic Institute), is divided into sections each controlling two valves. The installation has undergone successful tests under production conditions on some conveyor belts at the Kadzharanskaya molibdenovaya obogatitel'naya fabrika (Kadzharan Molybdenum Beneficiation Works) of the Armenian SSR. There are 5 figures and 6 Soviet references.

Card 2/2

SYSOYEVA, R.S., kand.tekhn.nauk

Study of dust in the crushing shop of an ore dressing plant.  
Bor'ba s sil. 3:129-134 '59. (MIRA 12:9)  
(DUST)

BARON, L.I., prof., doktor tekhn.nauk; SYSOYEVA, R.S., kand.tekhn.nauk

Automatic hydraulic dust removal. Bor'ba s sil. 3:141-145  
'59. (MIRA 12:9)

(DUST--REMOVAL)

BARON, Lazar' Izrailevich, prof., doktor tekhn. nauk; SYSOYEVA,  
Ruzanna Semenovna, kand. tekhn. nauk; KARAPETYAN, M.A.,  
red.izd-va; GALSTYAN, V., tekhn. red.

[Automatic control of the wet removal of dust in crushing  
plants] Avtomatizatsiia gidroobespylivaniia drobil'nykh  
tsekhov. Erevan, Armgosizdat, 1962. 116 p.

(MIRA 16:7)

1. Zaveduyushchiy pyleventilyatsionnoy laboratoriye Nau-  
chno-issledovatel'skogo gornometallurgicheskogo instituta  
(for Sysoyeva).

(Dust--Removal) (Ore dressing) (Automatic control)

SYSOYEVA, R.S., kand.tekhn.nauk

Foam method of cleaning the exhaust in the crushing section of an  
ore dressing plant. Bor'ba s sil. 5:240-242 '62. (MIRA 16:5)

1. Nauchno-issledovatel'skiy gornometallurgicheskiy institut  
Soveta narodnogo khozyaystva Armyinskoy SSR.  
(Crushing machinery) (Dust collectors)

SYSOYEVA, R.

Foam system dust collector. Prom.Arm. 5 no.9:37-38 S '62.  
(MIRA 15:9)

1. Nauchno-issledovatel'skiy gornometallurgicheskiy institut  
Sovnarkhoza ArmSSR.  
(Armenia—Coal preparation plants—Equipment and supplies)  
(Dust collectors)

SISOYeva, T. F.

"Polymerization of Anethole With Iodine for the Purpose of Obtaining Low Molecular Polymetholes and Anal Polymers Having Estrogenic Properties." Cand Chem Sci, Khar'kov State U, Khar'kov, 1954. (RZhKhim, No 2, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (13)  
SO: Sum. No. 596, 29 Jul 55

SYSOYEVA, T. F.

111

1  
✓ Diethylstilbestrol. T. F. Sosyeva and A. Ya. Savitskii,  
U.S.S.R. 102,882, June 20, 1959. Anethole-trimethylene  
polymer is oxidized by KMnO<sub>4</sub> in Me<sub>2</sub>CO and the resulting  
α-ethyldexyanisoin is converted by usual means into (S)-  
ethylstilbestrol. M. Houch

3

4E4F  
4E2C (J)  
1/2 May

111

"APPROVED FOR RELEASE: 08/31/2001

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APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001654320007-3"

*SYSOYEVA, T. F.**Polymerization of acetone by iodine and the trianethole**Submitted by V. Savitskii and T. P. Sysoeva (Ukrain.)**21*

and alk.  $\text{KMnO}_4$  gives IV. The oxidation of IV with alk.  $\text{KOH}$  to a trimer of anal. m. 78-82°, having an ester group and a chemical structure of trianethole. The structure of the polymer is:

alone. IV is depolymerized by  $\text{HgCl}_2$ . Summably III is an intermediate in the formation of IV. Since III is  $\text{RCH}_2\text{CH}(\text{CR})_2\text{Me}_2\text{HgCl}_2$ , possible structures are: I:  $\text{RCH}_2\text{CH}(\text{CH}_2\text{Me})_2\text{HgCl}_2$ ; II:  $\text{RCH}_2\text{CH}(\text{CH}_2\text{Me})\text{CH}_2\text{HgCl}_2$ ; III:  $\text{RCH}_2\text{CH}(\text{CH}_2\text{Me})_2\text{HgCl}_2$ ; IV:  $\text{RCH}_2\text{CH}(\text{CH}_2\text{Me})\text{CH}_2\text{CH}(\text{CH}_2\text{Me})_2\text{HgCl}_2$ ; V:  $\text{RCH}_2\text{CH}(\text{CH}_2\text{Me})_2\text{CH}_2\text{CH}(\text{CH}_2\text{Me})_2\text{HgCl}_2$ ; VI:  $\text{RCH}_2\text{CH}(\text{CH}_2\text{Me})_2\text{CH}_2\text{CH}(\text{CH}_2\text{Me})_2\text{CH}_2\text{HgCl}_2$ ; VII:  $\text{RCH}_2\text{CH}(\text{CH}_2\text{Me})_2\text{CH}_2\text{CH}(\text{CH}_2\text{Me})_2\text{CH}_2\text{CH}(\text{CH}_2\text{Me})_2\text{HgCl}_2$ ; VIII:  $\text{RCH}_2\text{CH}(\text{CH}_2\text{Me})_2\text{CH}_2\text{CH}(\text{CH}_2\text{Me})_2\text{CH}_2\text{CH}(\text{CH}_2\text{Me})_2\text{CH}_2\text{HgCl}_2$ ; IX:  $\text{RCH}_2\text{CH}(\text{CH}_2\text{Me})_2\text{CH}_2\text{CH}(\text{CH}_2\text{Me})_2\text{CH}_2\text{CH}(\text{CH}_2\text{Me})_2\text{CH}_2\text{HgCl}_2$ ; X:  $\text{RCH}_2\text{CH}(\text{CH}_2\text{Me})_2\text{CH}_2\text{CH}(\text{CH}_2\text{Me})_2\text{CH}_2\text{CH}(\text{CH}_2\text{Me})_2\text{CH}_2\text{CH}(\text{CH}_2\text{Me})_2\text{HgCl}_2$ . Oxidation of IV gives  $\text{RCHO}$ ,  $\text{RCO}_2\text{H}$  and a ketone  $\text{C}_6\text{H}_5\text{CO}_2\text{H}$ .  $\text{RCO}_2\text{H}$  is 2,4-dinitrophenylhydrazone, m. 38-40°. Oxidation of IV with  $\text{KMnO}_4$  gives  $\text{HOAc}$ ,  $\text{RCO}_2\text{H}$ ,  $\text{RCOCH}_2\text{R}$ .  $\text{AlCl}_3\text{HgCl}_2$  isemicarbazone, m. 180°; a ketone  $\text{C}_6\text{H}_5\text{CO}_2\text{H}$ , 2,4-dinitrophenylhydrazone, m. 115-20°; a ketone  $\text{C}_6\text{H}_5\text{CO}_2\text{H}$ , 2,4-dinitrophenylhydrazone, m. 127-9° different from the one obtained with IV and ? acids, m. 127-9° and 143-4°. VI is present in IV since it alone will give and 143-4°. VI or VII would give  $\text{AlCH}_2\text{R}$ . The formation of  $\text{AlCH}_2\text{R}$  in IV indicates the presence of both

SYSOYEVA, T.F.

USSR/Organic Chemistry. Synthetic Organic Chemistry. E-2

Abs Jour : Ref Zhur - Khimiya, No. 8, 1957, 26754.

Author : Sysoyeva, T.F.

Inst :  
Title : Investigation of Chemical Structure of Tri-anethole.

Orig Pub : Ukr. khim. zh., 1956, 22, No. 2, 200 - 204.

Abstract : It was found in the previous work (RZhKhim, 1957, 8346) that the polymerization of anethole (I) in presence of powdered I<sub>2</sub> resulted in a trimer, in trianethole (II). It is shown in the continuation of the above work that iso-anethole (III) is an intermediate product at the formation of II, because the yield of II is 4.5 times greater at the copolymerization (CP) of I and III than at the polymerization

AUTHORS: Makhnenko, N.I., Sysoyeva, T.F. SOV/80-32-2-44/56

TITLE: Synthesis of N-Sulfonyl-n-Tolyl-N'-Butyl-Urea (Sintez N-sul'fonil-n-tolil-N'-butilmocheviny)

PERIODICAL: Zhurnal prikladnoy khimii, 1959, Vol XXXII, Nr 2,  
pp 449-450 (USSR)

ABSTRACT: The preparation mentioned in the title and similar substances  
are used in the treatment of diabetes. An accessible method  
for laboratory and semi-industrial production is presented  
here. The different stages are: valeric acid, ethyl ether  
of this acid, its hydrazide, its azide, butylisocyanate, from  
which the mentioned substance is obtained.  
There are 8 references, 3 of which are Soviet, 3 German and  
2 English.

ASSOCIATION: Ukrainskiy institut eksperimental'noy endokrinologii (Ukrainian  
Institute of Experimental Endocrinology)

SUBMITTED: August 8, 1957

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MAKHnenko, N.I.; SYSOYeva, T.F.

Synthesis of sulfanilurea derivatives with hypoglycemic action.  
Trudy Ukr.nauch.-issl.inst.eksper.endok. 18:333-335 '61.  
(MIRA 16:1)

Iz otdela sinteza gormonov Ukrainskogo instituta eksperimental'noy endokrinologii.  
(UREA) (DIABETES)

LAPYNINA, L.A. [Lapynina, L.O.]; SYSOYEVA, T.F. [Sysoieva, T.F.]

Study of some plants for the determination of their sugar-reducing  
properties. Farmatsev. zhur. 19 no.4:52-58 '64. (MIRA 17:11)

1. Ukrainskiy institut eksperimental'noy endokrinologii.